ABSTRACT

A system for voice browsing or transcoding permits access and navigation to information via an audio user interface or a limited display user interface. The audio user interface permits speech or telephone keypad input to interrupt the presentation of information, for example, to direct following a hypertext link. When operating with the Internet, the user of one or more access devices including a cell phone, telephone, portable computer, or workstation may request a web page by providing an address. Guidance may be prepared ahead of time by the user operating an editor. Guidance may direct summarization, selection, annotation, and restatement of the requested content. Guidance may include statements of a markup language that include a structural summary description of the content or a hidden Markov model. To allow for frequent changes in the arrangement of content on web pages provided by the Internet, portions of the content are identified for the application of particular guidance by aligning a structural summary description of the current content to the structural summary description stored with the guidance. Guidance suitable for particular content may be located on the basis of an address of the content (e.g., a URL), of a related address, or of being within the scope of a regular expression. Guidance produces derivative content which may be easier to understand when presented in audio or easier to understand when presented on a display of limited area or resolution. Guidance may include nested subroutine declarations and calls; may process variables of string and tree type (e.g., a document object model); and may refer to other web pages for additional guidance and derivative content.